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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,642

09/21/2006

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EXAMINER

CHRISTIAN, MARJORIE ELLEN

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

07/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,642	<b>Applicant(s)</b> GUTMAN ET AL.	
	<b>Examiner</b> MARJORIE CHRISTIAN	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 18-27 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Summary*

1. This is the initial Office action based on the application filed September 21<sup>st</sup>, 2006.
2. **Claims 1-27** are pending, **claims 1-17** have been fully considered and **claims 18-27** have been withdrawn from consideration.

### *Election/Restrictions*

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, **claims 1-17**, drawn to a fluid treatment element with a fluid treatment pack, pleat and spacer arrangement.

Group II, **claims 18-27**, drawn to methods of making and using a fluid treatment element.

The inventions listed as Groups I and II do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features. Specifically, US Patent No. 5,252,207, MILLER et al. discloses a similar special technical feature. The special feature disclosed as fluid treatment element (Fig. 1-5, 7) comprising a fluid treatment pack including a treatment medium (23), an axis with upper and lower opposite ends, plurality

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of pleats between the ends; and a spacer arrangement (25) with the pleats of the fluid treatment pack to define a first region within each pleat that is occupied by the spacer arrangement (25).

During a telephone conversation with Mr. John Belz on 7/6/2009 a provisional election was made without traverse to prosecute the invention of Group I, **claims 1-17**. Affirmation of this election must be made by applicant in replying to this Office action. **Claims 18-27** are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 103***

4. **Claims 1-6, 8-17 are rejected under 35 USC 103 (a) as being obvious over US Patent No. 4,244,820 HAUK et al. as evidenced by US Patent No. 5,279,731, COOK et al..**

As to **claims 1-6, 8-12**, HAUK discloses a fluid treatment element (Fig. 8-9) comprising:

- a hollow, generally cylindrical fluid treatment pack and pleated composite (162);
- the pleated composite (162) includes a fluid treatment medium (184) and drainage medium (182) positioned along the outer surface of the fluid treatment medium, wherein the medium (182) can be considered a drainage medium because it has the typical characteristics of a drainage medium including parallel strands (Fig. 7, Ref. 182) transversely overlaid with other parallel strands;

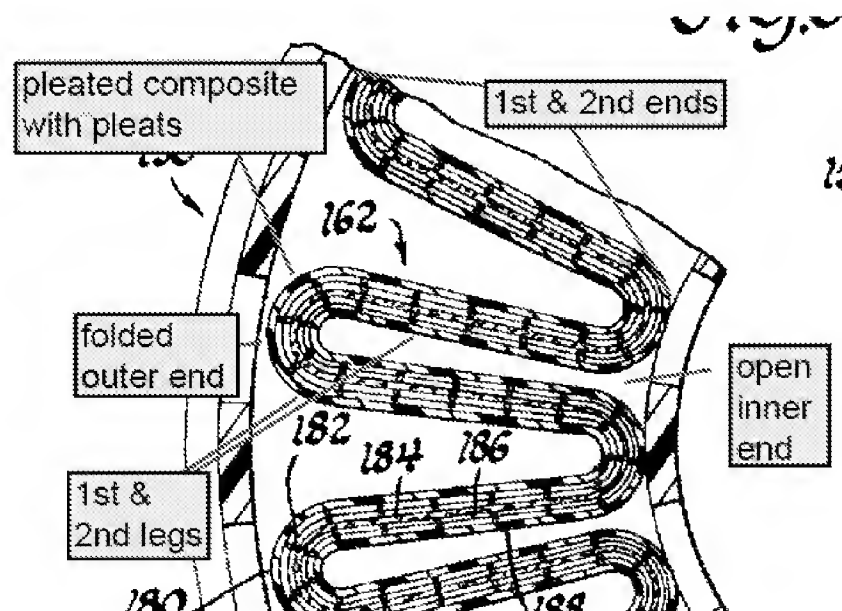
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- a spacer arrangement (186) associated with the pleats of the fluid treatment pack (162) inwardly from the inner surface of the fluid treatment medium (184), wherein the spacer arrangement (186) includes a spacer (186) positioned proximate the first and second ends of the fluid treatment and defines a region which extends along each pleat between the spacer (186) which is substantially free of structure (C9/L21-29, C10/L35-44); the spacer arrangement (186) is positioned proximate to the fluid medium and wall (188) that defines the thin flow channel [*region free of structure, first flow path*] (**Claims 5,12**); a second fluid flow path extends through the pleated fluid treatment medium from or to the first fluid flow path (C9/L21-29); and the spacer and region free of structure are positioned between the legs (**Claims 2,9**).
- HAUK does not appear to disclose a second porous medium (second spacer) and an additional porous medium (drainage medium of **Claims 3-4,10-11**), wherein the spacer arrangement is between the fluid medium and additional porous medium, however, it would be obvious to a person having ordinary skill in the art to include multiple layers of drainage medium (182) [*second spacer and drainage medium*], as it has been held that mere duplication of parts has no patentable significance *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Further, providing multiple layers of porous medium in a pleated filter media is well known as evidenced by COOK. COOK discloses multiple layers of porous media as shown in Fig. 12. Therefore, the invention as a whole would have been

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*prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

- a core arrangement (174/167) positioned in the hollow interior of the fluid treatment pack (162) and a blind portion (167) axially spaced from the first end and the second end of the fluid treatment pack (162), wherein the blind portion (167), made of glue/cement (i.e. urethane C9/L57), resists fluid flow radially inwardly from the axially extending regions of the fluid treatment pack (162, see particularly Fig. 6, 9, C9/L55-60); and
- first and second end caps (156/160) sealed to the first and second ends of the fluid treatment pack (162) (**Claim 6**), each end cap having a central opening (158/161) which fluidly communicates with the axially extending regions of the pleats (C10/L45-51).



As to **Claims 1-6, 13-17**, HAUK discloses a fluid treatment element (Fig. 4-5) comprising:

- generally cylindrical fluid treatment pack and pleated composite (62, see also annotated figure above), and
- the pleated composite includes a fluid treatment medium (84) having an inner and outer surface and a drainage medium (86) positioned along the inner surface of the fluid treatment medium;
- a spacer arrangement (80/82) extending between the first and second legs (**Claim 14**), packed outwardly from the outer surface of the fluid treatment medium (84), the spacer arrangement includes first (80) and second (82) spacers positioned proximate the first and second ends of the fluid treatment pack, and a region substantially free of structure which extends along each pleat between the spacer (80/82) and fluid treatment medium (84) (**Claim 17**) (C7/L48-50); and the spacer and region free of structure are positioned between the legs (**Claims 2**) proximate to the fluid treatment medium (84) (**Claim 5**). The spacer arrangement defines a first flow path (C7/L48-50) and the composite includes a second fluid flow path which extends through the pleated fluid treatment medium from the first fluid flow path (C7/L54-59). The spacer (82) can be considered a drainage medium because it has the typical characteristics of a drainage medium including parallel strands (Fig. 3, Ref. 82) transversely overlaid with other parallel strands (**Claims 4, 16**).

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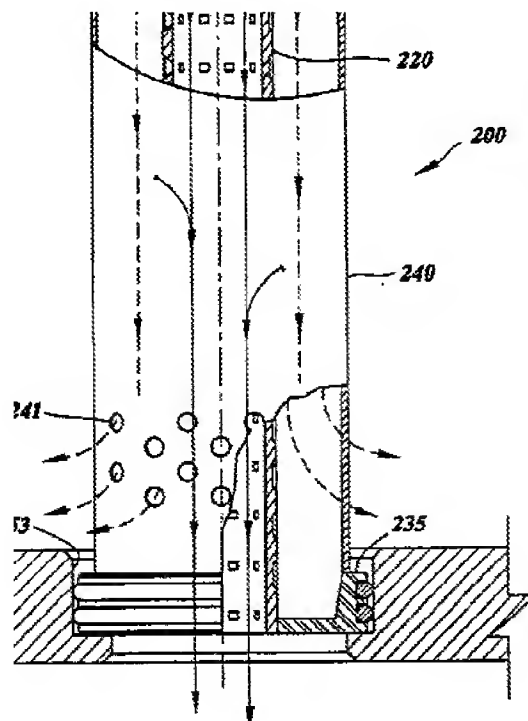
- HAUK does not appear to expressly disclose an additional porous medium (drainage medium of **Claims 3-4, 15-16**), wherein the spacer arrangement is between the fluid medium and additional porous medium, however, it would be obvious to a person having ordinary skill in the art to include multiple porous medium layers (i.e. 82) [*drainage medium*], as it has been held that mere duplication of parts has no patentable significance. Further, providing multiple layers of porous medium in a pleated filter media is well known as evidenced by COOK. COOK discloses multiple layers of porous media as shown in Fig. 12. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.
- an outer surround (64/67) positioned around the exterior of the fluid treatment pack, wherein the blind portion spaced from the first and second ends (67) is made of glue/cement (C5/L50-57) that resists fluid flow from the axially extending regions of the fluid treatment pack (C5/L50-57); and
- first and second end caps (16/18) respectively sealed to the first and second ends of the fluid treatment pack (**Claim 6**), each end cap having a central opening (20/24) which fluidly communicates with the interior of the fluid treatment pack (C4/L52-59).

5. **Claim 7 is rejected under 35 USC 103 (a) as being obvious over US Patent No. 4,244,820 HAUK et al. in view of US Patent No. 6,702,941 HAQ et al..**



As to **Claim 7**, HAUK discloses a housing body (Fig. 1, Ref. 14), cartridge (50) and perforated wall (52). HAUK does not appear to expressly disclose a surround fitted around the exterior of the fluid treatment pack having openings only near one end. However, HAQ discloses a fluid treatment element and a pleated composite (Abstract) with a surround (Fig. 6, Ref. 240) around the exterior of the fluid treatment element having openings only near one end (241).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the housing of the fluid treatment pack of HAUK to include the openings on the surround only near end of HAQ. The motivation would have been so that fluid flows over substantially the entire length of the filter pack. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.



***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARJORIE CHRISTIAN whose telephone number is (571)270-5544. The examiner can normally be reached on Monday through Thursday 7-5pm (Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571)272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/  
Primary Examiner, Art Unit 1797

MC